

WE CLAIM

1. A processor operable in a plurality of modes, and a plurality of domains, said plurality of domains comprising a first domain and a second domain, the processor comprising:

5 monitoring logic operable to monitor said processor and capture diagnostic data;

a storage element operable to contain at least one control parameter;

control logic operable to control said monitoring logic in dependence on said at least one control parameter and the domain in which said processor is operating, to
10 suppress capturing of diagnostic data relating to predetermined activities of said processor in said first domain.

2. A processor according to claim 1, wherein the first domain is a secure domain and the second domain is a non-secure domain, said processor being operable
15 such that when executing a program in a secure mode within said secure domain said program has access to secure data which is not accessible when said processor is operating in a non-secure mode within said non-secure domain.

3. A processor according to claim 1, wherein the at least one control
20 parameter provides an indication of said domain of operation of the processor, said control logic being operable to suppress capturing of diagnostic data when said processor switches from second to first domain.

4. A processor according to claim 1, wherein said at least one control
25 parameter identifies an application, said control logic being operable to suppress capturing of diagnostic data when said processor switches from an identified application in said first domain to an application in said first domain not identified by said at least one control parameter.

30 5. A processor according to claim 1, wherein said first domain comprises a plurality of modes and said at least one control parameter identifies a particular mode

within said first domain, said control logic being operable to suppress capturing of diagnostic data when said processor switches between an identified mode within said first domain and a mode within said first domain not identified by said at least one control parameter.

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6. A processor according to claim 5, wherein said plurality of modes in said first domain comprise a user mode and a privileged mode.

7. A processor according to claim 1, wherein said control logic is operable
10 to control said monitoring logic to resume capturing of diagnostic data when said processor switches back from said predetermined activity to an activity for which capturing of diagnostic data is not suppressed.

8. A processor according to claim 1, wherein said monitoring logic
15 comprises logic operable to perform a debug function.

9. A processor according to claim 1, wherein said monitoring logic comprises logic operable to perform a trace function.

20 10. A processor according to claim 1, wherein said control logic suppresses capture of said diagnostic data by removing power input to the monitoring logic.

11. A method of controlling a monitoring function operable to capture
25 diagnostic data from a processor, said processor being operable in a plurality of modes and a plurality of domains, said plurality of domains comprising a first domain and a second domain, the method comprising the steps of:

setting a control parameter indicative of whether capturing of diagnostic data is allowable;

monitoring said processor to capture diagnostic data;

30 suppressing capturing of diagnostic data relating to predetermined activities of said processor in said first domain in dependence on said control parameter.

12. A method according to claim 11, wherein said first domain comprises a secure domain and said second domain comprises a non-secure domain, said processor being operable such that when executing a program in a secure mode within said secure domain said program has access to secure data which is not accessible when
5 said processor is operating in a non-secure mode within said non-secure domain.

13. A method according to claim 11, wherein said at least one control parameter provides an indication of the domain of operation of said processor, data capture being suppressed when said processor switches operation from second to first
10 domain.

14. A method according to claim 11, wherein said at least one control parameter identifies an application, diagnostic data capture being suppressed when operation of said processor switches from an identified application in said first domain
15 to an application in said first domain not identified by said at least one control parameter.

15. A method according to claim 11, wherein said first domain comprises a plurality of modes and said at least one control parameter identifies a particular mode
20 within said first domain, capturing of diagnostic data being suppressed when said processor switches between an identified mode within said first domain and a mode within said first domain not identified by said at least one control parameter.

16. A method according to claim 15, wherein said plurality of modes in
25 said first domain comprise a user mode and a privileged mode.

17. A method according to claim 11, comprising the further step of:
resuming capturing of diagnostic data when said processor switches back from
said predetermined activity to an activity for which capturing of diagnostic data is not
30 suppressed.

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18. A method according to claim 11, wherein said monitoring function comprises a debug function.

19. A method according to claim 11, wherein said monitoring function
5 comprises a trace function.